The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A powered surgical tool system, said system including:

a powered handpiece for application to a body, said handpiece having a power consuming unit to which a select energization signals having a defined set of characteristics are applied and a non-volatile memory in which data regarding the characteristics of the energization signals that are applied to said handpiece are stored;

a control console configured to be connected to said handpiece for applying energization signals thereto and for reading data from said memory in said handpiece, said control console having:

a drive unit for generating the energization signals required by the handpiece, said drive unit being configured to generate the energization signals based on at least one drive unit command signal received thereby; and

a main controller connected to said memory in said handpiece and to said drive unit, said main controller being configured to retrieve the data stored in the memory in the handpiece and to generate said at least one drive unit command signal to said drive unit so as to control the generation of the energization signals by the drive unit in response to the data retrieved from the memory in the handpiece and an on/off signal; and

a manually actuatable switch connected to said main control console for generating said on/off signal and applying said on/off signal to said main controller of said control console.

2. The surgical tool system of Claim 1, wherein:

said power consuming unit in said handpiece is an electrically driven motor configured to operate at a maximum speed;

said memory in said handpiece includes data indicating the maximum speed at which said motor in said handpiece should operate;

said main controller in said control console is configured to generate a SPEED_SET_POINT signal representative of a speed at which said motor should operate based on the data in the memory in the handpiece indicating the maximum speed at which the motor should operate based and a variable speed signal and to assert said SPEED_SET_POINT signal to said drive unit in said control console as said at least one drive unit command signal;

said drive unit in said control console is configured to monitor the speed of the motor in said handpiece and to control the application of the energization signals to the handpiece based on the speed of the motor and said received SPEED_SET_POINT signal; and

said on/off switch is further configured to supply the variable speed signal to said main controller of said control console.

3. The powered surgical tool system of Claim 2, wherein:

said memory in said handpiece includes data indicating a maximum current that can be drawn by said motor in said handpiece;

said main controller is configured to generate a PEAK_I_SET_POINT representative of a maximum current that can be drawn by said motor in said handpiece based on the data in the memory in said handpiece and to forward said

PEAK_I_SET_POINT to said drive unit in said control console as a second drive unit command signal; and

said drive unit in said control console is further configured to monitor the current drawn by said motor in said handpiece and to regulate said generation of the energization signals for said handpiece based on a comparison of the current drawn by said handpiece and said PEAK_I_SET_POINT signal.

4. The powered surgical tool system of Claim 3, wherein said main controller of said control console is further configured to receive from said drive unit an indication of the speed of said motor of said handpiece and to generate said PEAK_I_SET_POINT signal based on the speed of the motor of said handpiece and the data in said memory of said handpiece.

5. The powered surgical tool system of Claim 1, wherein:

said manually actuatable switch includes a static member that is configured to be removably secured to said handpiece and a movable lever that is pivotally secured to said static member;

said handpiece includes an internal switch state sensor configured to monitor the position of said movable lever of said manually actuatable switch relative to said switch state sensor and to generate a switch state signal representative of the position of said movable lever;

said memory in said handpiece further includes data indicating the characteristics of said switch state signal generated by said switch state sensor when said movable lever of said manually actuatable switch is in different positions relative to said switch state sensor; and

said main controller of said control console is configured to generate said at least one drive unit command signal based on said switch state signal and said

data in said memory of said handpiece indicating the characteristics of said switch state signal.

6. The powered surgical tool system of Claim 1, further including:

a removable switch assembly that functions as said manually actuatable switch, said removable switch assembly having a static member configured for removable securement to said handpiece and a movable lever pivotally attached to said static member;

a switch state sensor mounted in said handpiece, said switch state sensor being configured to generate a switch state signal representative of a relative position of said movable lever of said removable switch assembly to said switch state sensor;

a water clip, including a snap ring that is configured to be removable fitted to said handpiece and an outlet tube that is attached to said snap ring;

a pump for supplying irrigating water, said pump being actuated in response to a pump control signal;

a flexible cable connecting said handpiece to said control console and to said pump, said cable having conductors for connecting said handpiece to said control console and an irrigation tube for providing a fluid communication path between said pump and said outlet tube of said water clip; an input/output interface integral with said control console, and wherein

said main controller of said control console is connected to said pump to apply said pump control signal thereto and said control console is further configured to generate said at least one drive unit command signal based on said switch state signals received from said handpiece and to control the generation of said pump control signal based on commands entered through said input/output interface of said control console.

7. The surgical tool system of Claim 1, wherein:

said handpiece is provided with a temperature sensor configured to monitor the internal temperature of said handpiece and to generate a temperature signal representative of the monitored temperature;

said memory in said handpiece includes data indicating the operating temperature of the handpiece;

said main controller in said control console is configured to retrieve the data in said memory of the handpiece indicating the operating temperature of the handpiece and to receive said temperature signal from said temperature sensor in said handpiece and based on said retrieved data and temperature signal control the generation of said at least one drive unit command signal.

8. The surgical tool system of Claim 7, wherein:

said control console further includes an input/output interface;

said main controller of said control console is configured to present a warning message on said input/output interface of said control console when based on said temperature signal and said data from said memory in said handpiece the internal temperature of said handpiece exceeds a predefined limit.

9. The surgical tool system of Claim 7, wherein: said handpiece includes a moving member; a bearing assembly is fitted around said moving member; and said temperature sensor is located adjacent said bearing assembly.

10. A surgical handpiece, said surgical handpiece including:

a housing;

a electrical power consuming unit located within said housing, said power consuming unit being configured to

receive a select set of energization signals;

a surgical attachment designed for application to surgical site that is connected to said power consuming unit for actuation by said power consuming unit; and

a non volatile memory contained within said housing, said memory having therein data representative of the characteristics of said energization signal that can be received by said power consuming unit.

11. The surgical handpiece of Claim 10, wherein:

said power consuming unit is a motor configured to operate over a defined range of speeds and to draw a defined amount of current; and

said memory contains data indicating the speeds at which said motor is operated and the current the motor should draw.

12. The surgical handpiece of Claim 11, wherein:

a temperature sensor is located in said housing, said temperature sensor being configured to generate a temperature signal representative of the internal temperature of said handpiece; and

said memory contains data indicating at least one internal operating temperature of said handpiece.

13. The surgical handpiece of Claim 12, wherein: said motor includes a field coil assembly and a rotating rotor that is fitted in said field coil assembly; a bearing assembly is fitted between said rotor and said housing; and said temperature assembly is fitted in close proximity to said field coil assembly and said rotor.

14. The surgical handpiece of Claim 10, wherein: a switch sensor is fitted inside said housing, said switch sensor being configured to assert a switch signal that is a function of the relative position of an external switch

lever to said switch sensor; and said memory includes data representative of the characteristics of said switch signal when the external switch lever is in different positions relative to said switch sensor.

15. The surgical handpiece of Claim 10, further including:

a movable lever releasably securable to said housing of said handpiece; and

a sensor disposed in said handpiece for monitoring the position of said lever relative to said handpiece, said sensor being configured to generate an initial sensor signal representative of the position of said lever relative to said sensor and,

wherein said memory contains data for producing a corrected sensor signal based on said initial sensor signal.

16. The surgical handpiece of Claim 15, wherein said movable lever is movably attached to a slip ring and said slip ring is configured to be removably secured to said housing of said handpiece.

17. A surgical handpiece, said surgical handpiece including:

a housing ;

an electrical power consuming unit located within said housing, said power consuming unit being configured to receive energization signals;

a surgical attachment designed for application to surgical site that is connected to said power consuming unit for actuation by said power consuming unit;

a removable switch assembly, said switch assembly including a collar adapted to be releasably fitted to said housing and a switch lever movably secured to said collar; and

a sensor disposed in said housing, said sensor configured to generate a sensor signal representative of the position of said switch lever of said switch assembly relative to said sensor.

18. The surgical handpiece of Claim 17, wherein said housing has a front end and a rear end opposite said front end; and said collar of said switch assembly is formed with a tab, said tab positioned to prevent said collar from being fitted over said front end of said housing.

19. The surgical handpiece of Claim 17, wherein said switch lever is pivotally mounted to said collar so that one end of said switch lever will move towards and away from said housing.

20. The surgical handpiece of Claim 17, wherein: a magnet is disposed in said switch lever of said switch assembly and said sensor is configured to monitor magnetic fields produced by said magnet.

21. The surgical handpiece of Claim 17, wherein said electrical power consuming unit is a motor.

22. A switch assembly for attachment to a surgical handpiece, the surgical handpiece having a housing in which the components of the handpiece are contained, the housing have opposed ends and a switch member sensor for monitoring the proximity of a switch element, said switch sensor being configured to generate a sensor signal, said switch assembly including:

a collar adapted to be removably secured to one end of the housing of the handpiece;

a movable switch member movably secured to said collar, said movable switch member further including a switch element fitted therein, wherein the movement of

said switch element causes the switch sensor in said handpiece to vary the sensor signal.

23. The handpiece of Claim 22, wherein said movable switch member is pivotally attached to said collar.

24. The handpiece of Claim 22, wherein said switch element in said movable switch member is selectively positionable in said movable switch member so as to be positionable both proximal to and distal from the switch sensor in the handpiece.

25. The handpiece of Claim 22, wherein said switch element in said movable switch member is a magnet.

26. A light-and-water clip for attachment to a surgical handpiece and a complementary cable, the surgical handpiece having a housing containing components forming the handpiece, the cable containing conductors over which signals are applied to said handpiece, the cable including a water line, said light-and-water clip including:

a rear jack having at least one electrical connector for connection to the power cable that is attached to the surgical handpiece and a inlet tube adapted for connection to the water line in the cable for receiving water therefrom;

a single carrier tube having a first end extending from said rear jack and a second end opposite said first end, said carrier tube including therein a conductor connected to carry signals from said electrical connector of said rear jack and said carrier tube being shaped to form a conduit therein that is in fluid communication with said inlet tube of said rear jack for receiving water therefrom; and

a head unit attached to said second end of said carrier tube, said head unit having: a fastening member

adapted to be releasably secured to said housing of said surgical handpiece; a bulb secured to said fastening member, said bulb being connected said conductor in said carrier tube so as to receive an energization signal therefrom; and a outlet tube fitted to said fastening member so as to be outwardly directed from said fastening member, said outlet tube being coupled to said conduit in said carrier tube so as to receive water therefrom and having an opening through which the water is discharged.

27. The light-and-water clip of Claim 26, wherein: said carrier tube is a flexible tube; and said fastening member of said head unit is configured to be secured to said housing of said surgical handpiece at a plurality of radial positions around said housing.

28. A powered surgical tool system, said system including:

a powered handpiece for application to a surgical site, said handpiece having a power consuming unit to which energization signals are applied, and that operates at given rate when energized, the rate being a quantifiable parameter;

a control console configured to be connected to said handpiece for applying energization signals thereto and for determining the operating rate thereof, said control console including:

a display for presenting images regarding the operation of said handpiece; and

a main controller connected to said handpiece for regulating the application of energization signals to said handpiece and for determining said operating rate thereof and to said display for regulating the images presented on said video display, said main controller configured to present a user time image on said display when energization

signals are not applied to said handpiece, said user time image including a first data image that presents information about said operating rate of said handpiece, said first data image occupying a given area on said display, and to present a run time image on said display when energization signals are applied to said handpiece, said run time image including a second data image that presents information about the operating rate of said handpiece determined by said main controller, said second data image occupying a greater area on said display than the area occupied by said first data image.

29. The surgical tool system of Claim 28, wherein: said power consuming unit in said handpiece is a motor that has a variable speed; said operating rate information said main controller determines about said handpiece is the speed of said motor; said first data image and said second data image presented on said display present information regarding the speed of said motor, said second data image being the operating speed of said motor.

30. The surgical tool system of Claim 28, wherein said user time image said main controller of said control console presents on said display includes, in addition to said first data image, a user time supplemental image that occupies an area of the display, and said run time image said main controller presents on said display includes, in addition to said second data image, a run time supplemental image, said run time supplemental image occupying a smaller area on said video display than occupied by said user time supplemental image.

31. A control console for providing energization signals to a powered surgical handpiece, the surgical handpiece having an internal memory in which data

regarding the characteristics of the energization signals that are applied to said handpiece are stored, said control console including;

a drive unit for generating the energization signals required by the handpiece, said drive unit being configured to generate the energization signals based on at least one drive unit command signal received thereby; and

a main controller connected to said memory in said handpiece and to said drive unit, said main controller being configured to retrieve the data stored in the memory in the handpiece and to generate said at least one drive unit command signal to said drive unit so as to control the generation of the energization signals by the drive unit in response to the data retrieved from the memory in the handpiece.

32. A method of controlling a control console for a surgical handpiece adapted to apply energization signals to a handpiece coupled to a socket integral with the control console, the control console further including a touch screen display on which users enter commands based on contact with buttons defined on a transparent touch screen, wherein a display is located behind said touch screen so that images of the defined buttons can be presented behind the defined buttons, said method of control including the steps of:

defining on the touch screen a button and simultaneously presenting on said display an image that does not include an image of the defined button so that said defined button is a phantom button;

determining if said phantom button is depressed, and if said phantom button is not depressed enter a user operation mode;

if said button is depressed, accessing said socket to determine if a select set of data can be retrieved through

said socket; and

if said select set of data is retrieved through said socket entering a maintenance mode and if said select set of data is not retrieved, entering the user operation mode.

33. The surgical handpiece of Claim 17, wherein:

said switch assembly includes a sensed member that is separate from said switch lever and is connected to said lever so that movement of said switch lever results in movement of said sensed member; and

said sensor is configured to monitor the displacement of said sensed member and to generate the sensor signal based on the position of said sensed member relative to said sensor.

34. The surgical handpiece of Claim 33, wherein said sensed member is mounted to said switch lever.

35. The surgical handpiece of Claim 33, wherein said sensed member is a magnet and said sensor is configured to generate the sensor signal as a function of the intensity of a magnetic field adjacent said sensor.

36. The surgical handpiece of Claim 17, wherein said surgical attachment is removably secured to said housing and removably connected to said power consuming unit.

37. A surgical handpiece, said handpiece comprising:

a body;

a power generating unit disposed in said body;

an attachment connected to said body and coupled to said power generating unit to apply the power generated by said power generating unit to a surgical site;

a sensor mounted in said body, said sensor configured to monitor the strength of an electromagnetic field in the vicinity of said sensor and to output a variable sensor signal as a function of the strength of said electromagnetic field;

a removable switch assembly, said removable switch assembly including:

a collar, said collar having at least one element positioned to at least partially surround said body so as to removably hold said collar to said body;

a switch element moveably connected to said collar; and

a sensed member connected to said switch element so as to move relative to said collar upon movement of said switch element, said sensed member being formed from material that, when moved, varies the electromagnetic field sensed by said sensor.

38. The surgical handpiece of Claim 37, wherein said switch element is pivotally attached to said collar so as to have an end that moves toward and away from said body.

39. The surgical handpiece of Claim 37, wherein:

said sensed member is a magnet and said sensor is connected to said switch element so as to move towards or away from said sensor upon movement of said switch element; and

said sensor is configured to monitor the strength of a magnetic field and to output the sensor signal as function of the strength to the magnetic field.

40. The surgical handpiece of Claim 39, wherein:

said sensed member is a magnet and said sensor is connected to said switch element so as to move towards or

away from said sensor upon movement of said switch element; and

said sensor is a Hall sensor.

41. The surgical handpiece of Claim 37, wherein said sensed member is mounted to said switch element.

42. The surgical handpiece of Claim 41, wherein said sensed member is moveably mounted to said switch element.

43. The surgical handpiece of Claim 37, wherein:

said power generating unit is a motor having a rotating shaft; and

said attachment is connected to said shaft to rotate upon actuation of said motor.

44. The surgical handpiece of Claim 37, where said power generating unit consumes electric power and outputs one from selected from the group consist of: mechanical energy; ultrasonic energy; and light energy.

45. The surgical handpiece of Claim 37, wherein said surgical attachment is removably secured to said to said body and removably connected to said power generating unit.

46. A surgical handpiece, said handpiece including:

a housing;

a motor disposed in said housing, said motor having a rotating shaft;

a coupling attached to said housing for releasably securing an attachment to said housing and connecting the attachment to said shaft;

a magnetic field sensor mounted in said housing, said sensor configured to generate a variable output

signal as a function of the strength of the sensed magnetic field; and

a removable switch assembly comprising:

a collar, said collar having at least one member shaped to at least partially surround said housing so as to removably hold said at least one member to said housing;

a switch element moveably attached to said collar;

a magnet coupled to said switch element to move with the movement of said magnet, said magnet being positioned adjacent said sensor so that movement of said switch element results in movement of said magnet towards or away from said sensor.

47. The surgical handpiece of Claim 46, wherein said sensor is a Hall sensor.

48. The surgical handpiece of Claim 46, wherein said sensor is mounted to said switch element.

49. The surgical handpiece of Claim 48, wherein said sensed member is moveably mounted to said switch element.

50. The surgical handpiece of Claim 46, wherein said switch element is pivotally attached to said collar so as to have an end that moves towards and away from said housing.

51. The surgical handpiece of Claim 50, wherein said magnet is mounted to said switch element so as to move towards and away from said housing.

52. A switch assembly for use with a surgical handpiece, said switch assembly comprising:

a collar, said collar having at least one element grasping element shaped to at least partially surround the surgical handpiece to removably secure said collar to the surgical handpiece;

a switch element moveably attached to said collar; and

a sensed member connected to said switch element to move with the movement of said switch element, said sensed member being formed from a material that varies the intensity of an electromagnetic field in the vicinity of a fixed point on the surgical handpiece.

53. The switch assembly of Claim 52, wherein said switch element is pivotally attached to said collar so that said switch element has a distal end that moves towards and away from the handpiece.

54. The switch assembly of Claim 53, wherein said sensed member is attached to said switch element so that switch element moves towards and away from said handpiece.

55. The switch assembly of Claim 53, wherein said sensed member is moveably attached to said switch element so that said sensed member has first and second positions relative to said collar and said sensed member upon the pivoting of said switch element moves towards and away from the handpiece.

56. The switch assembly of Claim 53, further including an extension member that is moveably fitted to said switch element so as to extend forward from the distal end of said switch element a variable distance.

57. The switch assembly of Claim 52, wherein said sensed member is a magnet.

58. The switch assembly of Claim 52, wherein said collar includes at least two grasping elements, each said grasping element shaped to partially surround a different section of the surgical handpiece so that said grasping elements collectively removably secure said collar to the surgical handpiece.

59. A control console for energizing a powered surgical tool, said control console comprising:

an energization unit for providing energization signals to the surgical tool attached to said control console wherein said control provides energization signals to the surgical tool based on at least one received energization control signals;

a display for generating images the present information about the surgical tool, wherein said display generates specific images in response to display drive signals applied to said display;

a temperature sensor attached to said display, said temperature display configured to monitor the temperature of said display and generate a DISPLAY_TEMP signal representative of the temperature of said display;

a display controller configured to generate display drive signals to said display and said display controller generates the display drive signals in response to receipt of display command signals; and

a controller connected to: said energization unit; said temperature sensor; and said display controller, said controlling being configured to:

generate the energization control signals to said energization unit;

receive the DISPLAY_TEMP signal from said temperature sensor; and

at least partially based on the DISPLAY_TEMP signal, to generate said display command signals to

said display controller.

60. A drive circuit for applying energization signals to the windings of a motor said drive circuit including:

a plurality of switch arrays, wherein each said switch array is associated with a separate one of the motor windings, each said switch array including: a first switch through which an energization signal is selectively applied; a second switch, each said second switch having at first end and a second end that is tied to ground;

a plurality of conductors, each said conductor extending between the first end of said second switch and a separate one of the motor windings; and

a plurality of inductors, each inductor extending between the output end of said first switch of a separate one of said switch arrays and the first end of said second switch of said switch array.

61. A control console for energizing a power tool that is removably attached to said control console and that contains a power generating device, said control console including:

an energization unit configured to:

selectively provide energization signals to the power generating device;

receive feedback signals from the power generating device generated as a consequence of the actuation of said power generating device; and

based on a received mode control signal, selectively provide the energization signals to the power generating device based on the received feedback signals or provide the energization signals to the power generating device independent of the state of any received feedback signals; and

a processor, said processor being connected to a removable memory integrally associated with the power tool and to said energization unit, said processor being configured to:

determine when a new power tool is connected to said control console and, when a new power tool is connected to said control console, to read the data in the removable memory associated with the power tool; and

determine from the data read from the removable memory whether or not energization signals are to be applied to the power generating unit based on feedback signals from the power generating unit and, based on the determination, to selectively generate the mode control signal to said energization unit.

62. A control console for energizing a power tool, the tool having a power generating unit and a socket for receiving a light emitting bulb, said control console including:

an energization circuit connected to the socket, said energization circuit including:

a resistor connected at a first end to a voltage source and at a second end to the socket;

a switch, said switch connected at a first end to the first end of said resistor and at a second end to the second end of said resistor, said switch configured to close upon application of a LIGHT_CONTROL signal to said switch;

a voltage measuring circuit connected to the second end of said resistor, said voltage monitoring circuit configured to monitor the voltage present at the second end of said resistor and to generate a LIGHT_SENSE signal as a function of the voltage present at the second end of said resistor;

a controller, said controller connected to said

energization circuit and to said voltage measuring circuit, said controller configured to:

selectively assert the LIGHT_CONTROL signal to said energization circuit to cause the energization of the light emitting bulb in the socket; and

when the LIGHT_CONTROL signal is not asserted, to receive the LIGHT_SENSE signal from said voltage measuring circuit and determine the status of the light emitting bulb based on the state of the LIGHT_SENSE signal.

63. A surgical handpiece, said handpiece including:

a housing;

a motor disposed in said handpiece, said motor having a rotating shaft;

a bearing assembly in said housing, said bearing assembly extending between said shaft and said housing; and

a temperature sensor disposed in said housing, said temperature sensor located a maximum of 0.5 inches away from said bearing assembly and configured to monitor the temperature in said housing and output a temperature signal as function of the temperature in said housing.

64. A powered surgical tool system for actuating an attachment, said system including:

a handpiece, said handpiece including:

a housing;

a power producing unit in said housing for actuating the attachment;

a coupling assembly attached to said housing, said coupling assembly configured to releasably hold the attachment to said housing and the releasably couples the attachment to said power producing unit; and

a non-volatile memory disposed in said

handpiece; and

a control console connected to said handpiece, said control console including:

an energization circuit connected to said power producing unit to provide a drive signal to said power producing unit;

at least one monitoring unit connected to receive at least one feedback signal from said power producing unit or said energization circuit that contains information regarding the operating of said power producing unit, said monitoring unit configured to, based upon the at least one feedback signal, produce state information regarding the operation of said power producing unit; and

a microprocessor connected to said at least one monitoring unit and said handpiece memory, said microprocessor configured to receive the state information from said at least one monitoring unit and to periodically write the state information into said handpiece memory.